

RESILIENT HOUSTON

ONE YEAR REPORT

MARCH 1, 2021





Together, over five years, we weathered serious financial challenges, instituted pension reform, and balanced five municipal budgets. Together, we helped our neighbors survive the Tax Day flood, Hurricane Harvey, and Tropical Storm Imelda. And now we have just endured a historic winter storm and cascading infrastructure failure that we are only beginning to recovery from.

At the beginning of 2020, we did not know what this year would bring. With the release of Resilient Houston, our comprehensive resilience strategy, Houston was positioned to break out of a years-long cycle of crisis and constant recovery. But instead we were faced with a global pandemic and public health crisis that ricocheted through every part of our lives – employment, education, housing, physical and mental wellbeing, spirituality, and entertainment. The pandemic forced many to see the disparities in society that made it possible for the COVID-19 virus to disproportionately affect older Houstonians, especially our Black and Latino neighbors.

The year 2020 also brought the murder of former Houstonian George Floyd, and a reckoning of an unequal society as more than 60,000 Houstonians peacefully marched in our streets protesting inequity and injustice.

And yet, through it all, Houstonians remain resilient.

Despite these challenges, we will continue to recover and build forward to be a more resilient city. Our priorities do not exist independent of one another—they are connected. We strive for prosperity, equality, and safety, by working in alignment to build resilience for our city, our region, our neighborhoods, and our watersheds and to improve the quality of life for all Houstonians.

Together we are addressing generations of under investments in our most vulnerable communities with the establishment of Complete Communities to facilitate more equitable investments moving forward. And now, together, we have endured a global pandemic that has been devastating in its destruction of lives, jobs, and daily routines. The new normal we're experiencing together would feel unbearable for many without the strength of our first responders and essential workers, and our community rallying together to help ourselves and our neighbors to adapt, adjust, and ask for help.

We designed Resilient Houston to strategically align priorities as we face our challenges and work together to have a more resilient city. And it came just in time. While some of our progress was delayed by the challenges of 2020, we were also able to respond to the pandemic using this resilience framework. This one-year report outlines what has been accomplished, what is in progress, and what we need to focus on in 2021 to continue building forward.

I am more dedicated than ever to a resilient, equitable, and sustainable COVID-19 recovery. We must meet this moment to make the transformative change that is needed to address all the shocks and stresses that we face, so that every Houstonian can thrive, especially our most vulnerable.

Sylvester Turner

Mayor



When COVID-19 began, Houston's resilience team, joined by partners HR&A, quickly knew that we needed to show this new, unexpected crisis could be examined and responded to through the Resilient Houston framework we had just developed. In May 2020, Resilient Houston's COVID-19 addendum was released. This analysis showed that approximately two-thirds of the prioritized actions that had just been developed in Resilient Houston were directly aligned with our COVID-19 response, recovery, adaptation, and the institutionalization or adoption of more resilience practices. This is due in part to COVID-19, like Hurricane Harvey or another shock or disruption, having a greater impact on the aspects of Houston that are most stressed. And our stresses, including climate change, environmental injustice, and health disparities are disproportionate in their impact on the most vulnerable Houstonians. Underlying inequities and disparities make it so much harder for some Houstonians to bounce back and thrive. When those inequalities are systemic, then our systems need to change to foster true resilience.

Resilient Houston was not created to sit on a shelf. From its inception, the plan's focus has been on implementation. Six implementation themes-- engagement, finance, metrics, partnerships, policy, and smart cities – will move many of the prioritized actions forward. In 2020, we worked with Bloomberg Associates to create additional metrics, beyond the 18 original Targets, to ensure accountability and transparency. In 2021, we are working with the Kinder Institute for Urban Research at Rice University and other partners to continue to build out and report on these metrics.

To kick start the implementation phase of this work, we focused in 2020 on expanding partnerships and leveraging public, private and philanthropic funding. We partnered with Microsoft, The Ion Smart and Resilient Cities Accelerators and others to partners to develop smart and resilient priorities. Our engagement in 2020 was focused on the COVID-19 response and recovery including the efforts of the Mayor's Health Equity Response (HER) Task Force. In 2021, equitable engagement will continue to be a focus of building a more resilient city. These partnerships and funding and financing opportunities will need to accelerate in 2021.

As you will see in this one-year report, 92% of the prioritized 62 Actions are moving forward. Many of the 18 Targets are on track, while other Targets were impacted by COVID-19 in 2020. You also will be able to take a quick look back at 2020 through the resilience lens by reviewing our timeline and you will be introduced to Houston's 24 Department Resilience Officers who are serving as champions for resilience and are charged with supporting the implementation of Resilient Houston's Goals, Targets, and Actions.

I am honored to serve as Houston's CRO as we begin the next year of our resilience journey. We have so much more to do—together.

Marissa Aho, AICP

Chief Resilience Officer

RESILIENT HOUSTON AT ONE YEAR BY THE NUMBERS

A snapshot of Resilient Houston after one year of implementation shows that out of 62 prioritized Actions, that 56 Actions (90%) are in progress, 5 Actions (8%) are paused or haven't started and 1 Action (2%) is complete.



CHAPTER 1: PREPARED & THRIVING HOUSTONIANS

All 9 Actions in Chapter 1 are in progress.



CHAPTER 2: SAFE & EQUITABLE NEIGHBORHOODS

Out of 13 Actions in Chapter 2, 12 Actions are in progress, and 1 is paused or not started.



CHAPTER 3: HEALTHY & CONNECTED BAYOUS

All 8 Actions in Chapter 3 are in progress.



CHAPTER 4: ACCESSIBLE & ADAPTIVE CITY

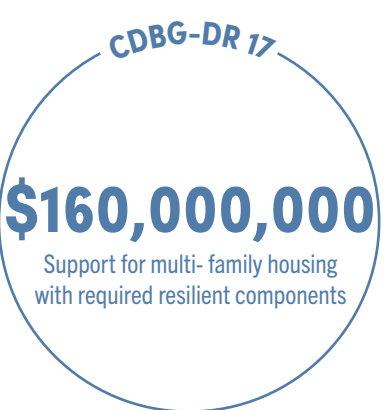
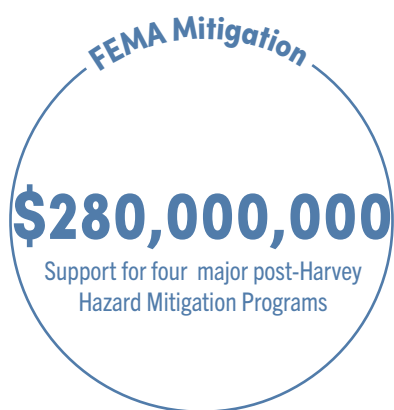
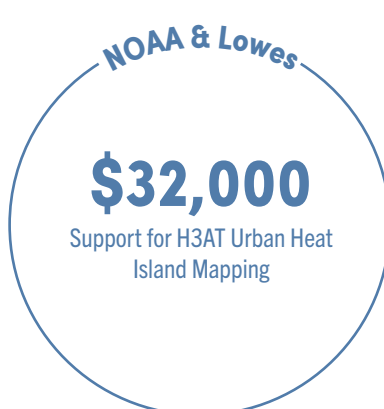
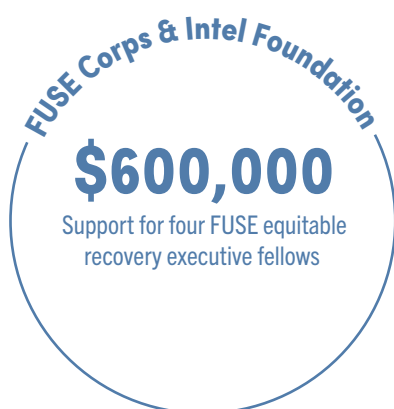
Out of 14 Actions in Chapter 4, 12 Actions are in progress, 1 is paused or not started, 1 is complete.



CHAPTER 5: INNOVATIVE & INTEGRATED REGION

Out of 17 Actions in Chapter 5, 14 Actions are in progress, 3 are paused or not started.


See expanded Actions information on pages 22-23.






2020–2021 RESILIENCE TIMELINE

The first year implementing Resilient Houston was filled with challenges and opportunities. Look back at some of the milestones.




 RH Action

 Shock/Stress






FEBRUARY

-  **12th** Mayor Turner launches the Resilient Houston Strategy and signs Historic Executive Order to Prepare the City for Future Disasters
-  **27th Infrastructure Failure** Water line break and wide-spread water outage
-  **29th Public Health Emergency** US first reported COVID-19 death




MARCH

-  **11th Public Health Emergency**
Mayor Turner and Harris County Judge Hidalgo Declare Public Health Emergency Due to COVID-19
-  **16th Public Health Emergency** COVID-19 Response Task Force began at risk and vulnerable populations coordination
-  **24th Public Health Emergency** City of Houston and Harris County Issue Stay at Home Order




APRIL

-  **6th** Mayor Turner Announces New Resources to Help Essential Workers Find Child Care
-  **20th** Mayor's Health Equity Response (H.E.R.) Task Force and Mask Up! Campaign Launch
-  **22nd** Houston's Climate Action Plan Released
-  **24th** Mayor Turner Names City of Houston's COVID-19 Relief and Recovery Czar
-  **30th** City Commits to 100% Renewable Energy

MAY

-  **62 8th** Houston's Resilience Office Joins Global Coalition: Cities for a Resilient Recovery from the COVID-19 Pandemic
-  **18th** Houston Integrates COVID-19 Response and Recovery into Resilient Houston Framework
-  **25th Crime and Violence** Houston Native George Floyd murdered in Minneapolis

JUNE

-  **3rd** 60,000 Houstonians Join In Peaceful March for George Floyd
-  **15 10th** Mayor Turner Invites Proposal for National Creative Placemaking Grant
-  **58 30th** Sixteen affordable multifamily developments with required resilience components were awarded \$160+ million of CDBG DR-17 (Harvey Disaster Recovery) funds.

JULY

-  **31 13th** Office of Sustainability Seeks Input to Make Electric Vehicles More Accessible

● AUGUST

- 16 7th Houston/Harris County holds large community-led urban heat mapping effort
- 8th Houston Consent Decree for Wastewater
- 11 12th Houston joins UNICEF USA Child Friendly Cities initiative
- 16th **Extreme Heat** Hottest day of the year in Houston at 102 degrees (Bush Intercontinental Airport)
- 24th Houston's First Climate Week Kicks Off, then delayed by Hurricane Laura
- 25th 3rd Anniversary of Hurricane Harvey
- 27th Hurricane Laura made landfall near Cameron, Louisiana as a Category 4
- 29th Houstonians "Pay It Forward" through relief efforts for Hurricane Laura

● SEPTEMBER

- 58 9th City of Houston received \$54.3M in FEMA funding for the first phase of the Subterranean Detention Basin and Storm Sewer Improvements in the TIRZ 17 and Memorial City area, bringing the total FEMA award for four major post-Harvey flood mitigation programs to \$280M.
- 32 14th City of Houston Releases Climate Impact Assessment Projecting Future Houston Climate Trends as Part of the continuation of Houston's First Climate Week

● OCTOBER

- 23 1st City Council adopts Walkable Places and Transit Oriented Development Ordinances
- 62 5th Mayor Turner Named as Board of Directors Chair of Resilient Cities Network
- 5th Resilient Houston Recognized with Top Award for Resilience by the American Planning Association Texas Chapter
- 39 20th Houston Mayor's Office and Department Leadership Participate in Racial Equity Training
- 31 20th City Council passed Climate Action Plan resolution

● NOVEMBER

- 16 6th Houston Celebrates Texas Arbor Day by Planting 600 Trees at Buffalo Bend Nature Center and Kicks off the 4.6 Million Native Tree Planting Goal by 2035
- 19 13th Houston Launches Houston Eats Restaurant Support Food Access Program
- 34 30th Mayor Turner Announces the Urban Prairie Resiliency Project

● DECEMBER

- 12 9th City Council Supports Phase 2 of Complete Community Action Plans
Alief-Westwood, Fort Bend Houston, Kashmere Gardens, Magnolia Park-Manchester and Sunnyside
- 44 15th COVID-19 Health Equity Response Dashboard launched
- 8 16th Houston Vision Zero Action Plan released
- 34 16th City Council Approves Green Stormwater Infrastructure Tax Abatement Program
- 58 30th Approximately \$405M CARES funding spent or allocated by COH

● JANUARY

- 16 5th Urban Heat Island Mapping data released
- 39 28th National League of Cities – Cities of Opportunity Action Cohort on equity and resilience project kicks off
- 62 28th Mayor Turner Announced as Chair of Climate Mayors
- 34 29th Urban Prairie Resiliency Project kicks off

● FEBRUARY

- 19 1st The first FUSE Executive Fellowships cohort focused on equitable recovery starts their one-year positions in Houston
- 15th **Extreme Cold | Infrastructure Failure** Houston experiences extreme cold weather event with a cascading infrastructure failure that effected millions of Houstonians.

● MARCH

- 41 1st Release of Resilient Houston's first one year report.

COVID-19

COVID-19 was the first major shock to deeply effect Houston, and the rest of the globe, just weeks after the release of Resilient Houston. And while “health emergencies” were identified as a potential resilience challenge, the extent to which COVID-19 has harmed Houstonians, permanently altered our systems, and disproportionately affected Black and Latino Houstonians, older adults, first responders, essential workers and more is unprecedented.

In April 2020, Mayor Turner formed the Mayor’s COVID-19 Health Equity Response (HER) Task Force led by the Directors of Complete Communities, Community Relations, Education, Innovation, Special Events and the Chief Resilience Officer with approximately 50 community leaders. More information on the Mayor’s COVID-19 HER Task Force Activities and other aligned efforts to support vulnerable Houstonians is available on a dashboard launched in December 2020.

To view the dashboard, visit
<https://dashboard.houstoncovid19recovery.org/>

A few of the ways that Houston's COVID-19 Response and Recovery efforts integrated resilience principles are featured here.

Houston Eats Restaurant Support \$3.5M CARES funding

The Houston Eats Restaurant Support (HERS) mass feeding relief program was designed to provide assistance during COVID-19 to restaurants and catering companies located in Houston neighborhoods that were identified as being disproportionately affected by COVID-19. A total of 19 restaurants and catering companies participated in the program thereby keeping their doors open and being able to continue to support their employees. In just seven and a half weeks, from early November 2020 to the end of December 2020, these restaurants and catering companies served over 218,000 meals to vulnerable Houstonians who reside in neighborhoods that were identified as being disproportionately affected by COVID-19.

To qualify to be part of the program, both restaurants and meal recipients need to be located in one of 31 ZIP codes including the City's Complete Communities and other neighborhoods that were identified by the H.E.R. Task Force this in early 2020 based on CDC social vulnerability data.

Through this program, local restaurants and catering companies, their employees, and vulnerable Houstonians who are experiencing food insecurity because of COVID-19 were all served. These multiple benefits were intentionally built into the program using core resilience principles. Food insecurity and small restaurants ability to survive the economic impacts of the pandemic remain after CARES funding ran out for this program on December 30, 2020.

Childcare Rental Relief \$3M CARES funding

From the beginning of the COVID-19 pandemic child care access, and dependent care in general, was a critical need especially for first responders and essential employees. The City of Houston began by working with Collaborative for Children and Workforce Solutions to connect essential employees at the City to available child care resources. As the pandemic continued, many child care businesses struggled to keep their doors open.

The City of Houston worked with Collaborative for Children to provide rental relief to 118 child care centers throughout the City of Houston so that they could, in turn, support their employees and the children and families that they serve. By supporting the child care infrastructure of the city to continue to stay open during pandemic, they continued to support first responders and essential employees so that they could continue to serve Houstonians.

COVID Relief Grants to the Creative Community \$5M CARES funding

The Houston creative community has been hit hard during the COVID-19 pandemic as music venues and art spaces have closed. To help combat some of the financial strain impacting local artists and cultural organizations, the Mayor's Office of Cultural Affairs (MOCA) distributed \$5 million to artists, cultural organizations, music venues and musicians. MOCA, in collaboration with Houston Arts Alliance (HAA) and Mid-America Arts Alliance (MAAA), successfully distributed federal CARES funds allocated to the City of Houston to 691 recipients. A total of 226 artists, 308 musicians, 36 music venues, and 121 arts and cultural organizations received support. The MOCA CARES relief grant programs were offered twice in 2020, in August and in November.

DEPARTMENT RESILIENCE OFFICERS

On February 12, 2020 as part of the release of Resilient Houston, Mayor Sylvester Turner signed the Resilient Houston Executive Order (EO 1-66) which directs City departments, divisions, and personnel to: use Resilient Houston as a strategic planning and prioritization tool, to collaborate with other departments and divisions on coordinating city functions and increasing multiple-benefit outcomes across city programs, and to track and provide regular updates to the Chief Resilience Officer on implementation progress.

To help facilitate this coordination and implementation, the Executive Order also established the role of Department Resilience Officer (DRO). Below are the Department Resilience Officers working together to coordinate and collaborate on the implementation of Resilient Houston priorities.

**Lara
Cottingham**

**Administration &
Regulatory Affairs Department**



Lara is the Chief of Staff, Chief Sustainability Officer and DRO for the ARA department. In addition to leading the Mayor's Sustainability Office, Lara is the public face of ARA in the media as well as before City Council, industry stakeholders, and customers. Prior to joining the City, Lara was a member of Hill+Knowlton Strategies' Houston office, providing strategic counsel in sustainability and social responsibility issues for a broad range of clients across the energy sector. Lara graduated magna cum laude from the University of Texas in Austin with degrees in History, Ancient History & Classical Civilizations, and Government. She earned an MBA in Energy Finance and Public Affairs from the University of Texas.

**Lindsay
Hook**

**Houston Airport
System Department**



Lindsay is the Director for Corporate Strategy & Performance Management for the Houston Airport System. Under Lindsay's leadership, the Corporate Strategy division facilitates development and execution of the strategic plan and pushes to define how the Houston Airport System will be successful in the future. As the Assistant Director of CSP, Lindsay also leads performance management, process improvement, enterprise risk management and innovation programs. She has been appointed as the Department of Aviation Resilience Officer, supporting the integration of Houston Airports Strategies with Resilient Cities initiatives. She previously served as the Director of Corporate Strategy for the Port of Houston Authority. In her spare time, Lindsay enjoys watching the Astros with her husband and sons.

**Ky
Wilson**

**Office of Business
Opportunity**



Ky serves as a Senior Staff Analyst, for Title VI and is the DRO for the Office of Business Opportunity. Ky is responsible for the City of Houston's Title IV Program, Plan, and Assurances. The City of Houston is committed to providing programs, services and activities without discrimination based upon legally protected characteristics. She coordinates departmental liaisons to make good faith efforts to prevent the impact of programs from resulting in inadvertent discrimination to low-income or minority populations. Ky brings over 20 years of workforce, training, and education (administrator and teacher) experience; Federal/state regulatory compliance and strategy development expertise. She has owned and operated event planning and event spaces, co-working, and business and brand development services. Ky holds a Bachelor of Business Administration in Marketing from the University of Houston and is an active member of her community.

**Cory Lynn
Golden**

**Office of
Emergency Management**



Cory Lynn is a Senior Staff Analyst and the DRO for the Office of Emergency Management. Cory Lynn joined the City of Houston in January 2020. In her blue-sky role, she serves as the planning team lead maintaining and enhancing the City's emergency plans. The Hazard Mitigation Plan, identifying the city's hazards, risks, and vulnerabilities, is maintained by OEM and will be updated beginning in 2021 for renewal by 2023. During gray skies, she is responsible for the Situation Report and planning needs in the Emergency Operations Center. She graduated from Florida State University with master's degrees in public administration and urban and regional planning and returned to Houston in 2018 after thirteen years away.

**Sheila
Murphy**

Finance Department



Sheila has served as Division Manager for the City of Houston's Finance Department for nearly 14 years, diligently working towards ensuring all goals and objectives for the Finance Department are achieved. She serves as the DRO for the Finance Department. Sheila earned her Bachelors of Science in Accounting degree from Park University and Human Resource Management Academy from the City of Kansas City. Sheila is also a Certified Public Manager from the University of Kansas.

**Bryan
Sky-Eagle**

Houston Fire Department



Bryan is the DRO for the Fire department. Bryan currently serves as a Deputy Chief and Shift Commander in the Emergency Response Division. After serving as Area Commander during Hurricane Harvey, he worked with the University of Houston Law Center on a Disaster Law and Resiliency project where he was later selected as an Affiliated Scholar with the Center for US and Mexico Law. Bryan is professionally designated as a Chief Fire Officer with the Center for Public Safety Excellence and was appointed to the Terrorism and Homeland Security Committee of the International Association of Fire Chiefs.

**Marchelle
Cain**

Fleet Management Department



Marchelle is the Chief of Staff, Deputy Assistant Director and DRO for the Fleet Management department. Having also served as a chief of staff for a Houston City Council member, fleet management recruited Cain for her council expertise to serve in a liaison role for the department. The type of work that needed to be done was familiar to her, both from her time as a council staffer and her former experience in the private sector as a management consultant. With opportunities to manage project, this position provided her with a chance to make a difference, especially with sustainability.

**Richard
Vella**

General Services Department



Richard is the Assistant Director of the Real Estate, Design and Construction Division and DRO for the General Services department. Richard has worked for the City of Houston for 28 years. This division is responsible for the acquisition, disposition and leasing of the City's real estate portfolio, and design and construction of City facilities, including police and fire stations, libraries, parks, health clinics, multi-service centers, municipal courts, recycling centers, and fleet facilities. During his tenure, Richard has managed numerous projects totaling in excess of \$1 Billion dollars. He holds a Master's of Architecture from the University of Houston.

**Dr. Loren
Hopkins**

**Houston Health
Department**



Loren is the Chief Environmental Science Officer and DRO for the Health department. Since 1998, Loren has conducted research relating Houston air pollution to human health effects. Her current research involves estimating the cost of air pollution triggered asthma attacks and identifying city-specific, high-risk asthma days in Houston. In 2009 she served on the EPA Science Advisory Board and Risk and Technology Review Methods Panel, and in 2014 she served as a visiting scientist on the Centers for Disease Control and Prevention Air Pollution and Respiratory Health Branch, Division of Environmental Hazards and Health Effects, National Center for Environmental Health in Atlanta. She is a Professor in Practice in Rice Universities' Department of Statistics.

**Ray
Miller**

**Housing &
Community
Development
Department**



Ray serves as Assistant Director and the DRO for the Housing and Community Development department. Ray supervises the Real Estate, Public Facilities, Economic Development and Multifamily divisions at HCDD. He manages a team of managers, underwriters, project managers and administrative staff to ensure sound underwriting and government compliance. These divisions invest in developments and initiatives that promote affordable housing and economic development throughout the city. These divisions are currently administering over \$500 million of CDBG Disaster Recovery proceeds to assist the city in its rebuilding efforts. A native of Baton Rouge, La., Miller received a bachelor's degree in Education from Louisiana State University. He lives in Conroe, Texas, with his wife, Amy, and their daughter.

**Darien
Helton**

**Human
Resources
Department**



Darien is the Deputy Director of Operations and the DRO for the Human Resources department. Darien brings over 28 years of HR experience with the City of Houston. In this role, Helton oversees a staff of about 170 employees who provide HR support to approximately 22,000 employees. He directs the leadership for all Client Services, Shared Services, Staffing, Employee Relations, Executive Recruiting and Employment Resources & Services. He holds both the SHRM SCP and SPHR certifications, designating him as a Senior Professional in Human Resources. He received both his Bachelor's Degree (in Computer Science with a minor in Psychology) and Master's Degree (in Political Science) from the University of Houston.

**Gil
Jackson**

**Information
Technology Services**



Gil is the Assistant Director, Project Management Office and DRO for the Information Technology department. He supports over 22 departments throughout the City of Houston. Gil's career has been primarily in the Management Consulting Space including working for the US Oncology Network to participate in the Center for Medicare and Medicaid Innovation Oncology Care Model to reduce the cost of care while improving quality and patient outcomes. Gil led IBM's Global Program Management program. Gil was also the Global Client Director with Bristol-Myers Squibb supporting HR Administration Services, Payroll Processing, and Workforce Administration. Gil has a Bachelor of Science in Computer Science and earned his Project Management Professional (PMP) license in 2002.

Elizabeth
George
Legal Department



Elizabeth is an Assistant City Attorney and the DRO for the Legal department. Elizabeth is a 2019 graduate of the University of Houston Law Center and joined the City of Houston in November 2019 as an environmental attorney. She is also a graduate of The Ohio State University in Columbus, Ohio, where she received her B.S. in Environment, Economy, Development, and Sustainability (EEDS) with a focus in Business and Sustainability. As one of two environmental attorneys for the City, Elizabeth provides counsel about possible federal and state environmental infractions and enforcement requirements as well as drafting ordinances related to a variety of environmental legal matters.

Emmanuel
Merenini
Houston Public Library
Department



Emmanuel Merenini, CPM (Certified Public Manager), is a Division Manager and the DRO for the Library department. Emmanuel has several years of leadership experience in large organizations in public, private and nonprofit sectors. An active member of the American Library Association and National Certified Public Manager Consortium. Serves as IT Division Manager in the Library's Digital Strategies division. He has a BS in Business Administration and MS in Personnel Administration from Alabama A&M Uni, MS in Information Science Technology from Uni of North Texas. He introduced the passport service program to the Library. He also introduced the replacement of desktops with laptops to create a mobile workforce.

Lilly
Warden
Municipal Courts
Department



Lilly serves as Deputy Assistant Director and the DRO for the Municipal Courts department. Lilly was born in Havana, Cuba. She earned her bachelor's degree in Political Science from the University of Houston. She has held various positions in the public/private sectors including Court Coordinator for Harris County, and Case Manager for the IRS. She served as Governance Administrator for the Methodist Hospital System assisting with Boards and Committees, and in the legal and oil & gas industries. Her tenure with the City of Houston began in 1995 as an Administrative Assistant in the Legal Department. She is currently an Assistant Director overseeing Budget/Finance, Facilities, Jury Administration, and Language Services. She also serves as ADA and Language Access Coordinator and represents her Department in the Resilient Houston Committee.

Patricia
Harrington
Department of
Neighborhoods



Patricia is a Deputy Assistant Director and the DRO for the Department of Neighborhoods. Patricia has worked for the City of Houston for over 20 years. She has worked for City Council and the Mayor's Anti-Gang Office where she was responsible for constituent services, and development and implementation of delinquency prevention programs. She currently serves as a Deputy Assistant Director for the Department of Neighborhoods where she oversees administration of the resident outreach and direct services division. She has a degree in Political Science from the University of Houston.

**Charlotte
Lusk**

**Houston Parks &
Recreation Department**



Charlotte is the Division Manager for Quality Assurance and the DRO for HPARD. Charlotte joined HPARD in June 2006. Her interest and experience in public service began years prior with a high school internship. She's currently responsible for programs and services in Greenspace Management including Natural Resources Management, Urban Gardening and Community Involvement. Charlotte is a Certified Parks and Recreational Professional (CPRP) and member of the National Recreation and Parks Association (NRPA). Prior to Houston, Charlotte was a manager for an international non-profit organization based in Dallas where she worked for 11 years. She holds an MBA from Texas A&M University-Commerce. Her favorite pastime activities include: doll making, reading, gardening and nature walks.

**Jennifer
Ostlind**

**Planning &
Development
Department**



Jennifer is an Assistant Director and the DRO for the Planning and Development department. Jennifer's experience includes community engagement, neighborhood planning, transportation planning, demographic analysis, and administering the City's platting, off street parking and site plan regulations. She was project manager for Plan Houston and currently oversees planning and public engagement for the Department's initiatives. She builds partnerships with other departments, outside agencies, non-profit organizations, and advocacy groups to develop and implement projects. Jennifer earned bachelor's and master's degrees in Public Administration from Indiana University and the University of Pittsburgh respectively. She is a member of the American Institute of Certified Planners.

**Dr. Diana
Poor**

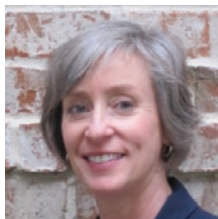
**Houston Police
Department**



Diana is the Deputy Director/Chief Data Officer and the DRO for the Police department. Diana is a retired 22 year Lieutenant of the Houston Police Department, serving in various capacities of patrol, training and administrative positions within the command structures of the department. Upon retirement she was appointed Deputy Director/ Chief Data Officer within the command of the Office of Planning & Data Governance. Responsibilities include strategic planning for the department, data governance, research, memorandums of understanding as well open data sets to foster public transparency for the department.

**Sharon
Citino**

**Houston Water
Public Works**



Sharon serves as the Planning Director and DRO for Houston Water. Before joining Houston Water, Sharon was a Senior Assistant Attorney with the city's Legal Department, where she advised Houston Water on water rights matters, water supply and wastewater service contracts, and complex interlocal water and wastewater infrastructure projects. Sharon is proud to work with a dedicated team of professionals to ensure that all Houstonians have access to safe and reliable water and wastewater services. Previously, she was an assistant city attorney for Loveland, Colorado. Sharon earned a bachelor's from Kenyon College, a Master of Arts from Marshall University, and a J.D. from Ohio State University Moritz College of Law.

**Michael
Howard**

**Houston Permitting
Center
Public Works**



Michael Howard is an Assistant Deputy Director for Houston Public Works and is the DRO for the Houston Permitting Center. Michael has been with the City of Houston since 1994. Prior to working for the City of Houston, Michael worked in the construction industry professionally starting as an apprentice carpenter in the Houston Area Carpenters Union. He has been a student of the national construction code for over 27-years and maintains multiple code certifications. As head of the Customer Assistance and Code Development team, Michael participates in National Code Development and for the City of Houston coordinates the creation and adoption of the Houston Construction Code. Michael is vital to ensuring Houston Public Works meets the Resilient Houston goal of ensuring that our building codes and standards are up to date and reflect the latest resilient building methods, technologies and materials.

**Maureen
Crocker**

**Drainage Planning
Public Works**



Maureen is the Assistant Director for Transportation and Drainage Planning and the DRO for this section of Public Works. Before moving to Houston, Maureen worked in Washington, D.C. covering transportation, infrastructure and environmental issues and projects for the Mayor of Chicago and the Governor of Illinois as well as Members of Congress. Maureen has a Masters Degree in Urban Planning and Policy from the University of Illinois at Chicago. She was designated Woman of the Year by the Houston Chapter of the Women's Transportation Seminar in 2014.

**Randy
Tims**

**Solid Waste
Management
Department**



Randy serves as an Assistant Director and is DRO for the Solid Waste Management Department. He manages the Finance and Administration Division which is responsible for dumpster permits, safety, policy development, budget development, accounting, purchasing, extra capacity and non-residential collection programs. Randy has been with the City of Houston for 27 years. Working with the City Controller's office, Houston Fire Department and the Finance & Administration Department. Randy has been with the Solid Waste Management Department since 2001, as a Financial Analyst IV, Division Manager and is currently the Assistant Director of Finance and Administration. He earned a BS in Accounting from Grambling State University.

**Louis
Gonzalez**

**Office of the City
Secretary**



Louis started with the City of Houston in 1996 and has worked for the City Secretary's Office for 19 years. In 2015 Louis accepted a position in the Office of Emergency Management during which he worked 2 World Series, 1 Super Bowl and Hurricane Harvey. In October of 2019 Louis returned to the City Secretary's Office and now serves as the department's DRO.

KEY PARTNERS

Implementing Resilient Houston takes many partners and supporters. We want to acknowledge and thank the organizations below for their generous support, their dedicated partnership, and their commitment to a more resilient Houston. We look forward to expanding this list in 2021.

Supporters

Shell
50/50 Park Partners
BP
FUSE Corps
Intel Foundation
JPMorgan Chase
Lowes
NOAA
Reliant
Rockefeller Foundation
Wells Fargo

Implementation Partners

AARP
Accenture
Asakura Robinson
Atmos Research
Bloomberg Associates
Buffalo Bayou Partnership
C40
CenterPoint Energy
Cities Connecting Children to Nature
Cities for a Resilient Recovery
Climate Mayors
Conservation Flood Mitigation Working Group
COVID-19 Health Equity Response Task Force
Denmark
Environmental Protection Agency
Evolve Houston
Federal Emergency Management Agency
Government Alliance for Racial Equity
Greater Houston Partnership
H3AT Partners and Volunteers
HARC
Harris County Flood Control District
Harris County Health Department
Houston Parks Board
Houston Wilderness
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January Advisors
Katy Prairie Conservancy
LINK Houston
METRO
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National Fish and Wildlife Foundation
National League of Cities
New Hope Housing
Port of Houston
Resilient Cities Catalyst
Resilient Cities Network
Rice University Data to Knowledge (D2K) Lab
Rice University's Kinder Institute for Urban Research
The Ion
The Nature Conservancy
The Netherlands
Trees for Houston
ULI Houston
UNICEF
U.S. Army Corps of Engineers
U.S. Department of Homeland Security
U.S. Department of Housing and Urban Development
USGBC Texas
Water Institute of the Gulf
Wood
Vision Zero Partners



RESILIENT HOUSTON

CHAPTERS & GOALS

Resilient Houston's framework of chapters and goals was developed and launched in February 2020. Houston remains committed to this framework for a more just, green, and resilient future to benefit Houstonians, neighborhoods, bayous, the city, and the region.

CHAPTER 1: PREPARED & THRIVING HOUSTONIANS



GOAL 1 We will support Houstonians to be prepared for an uncertain future.



GOAL 2 We will expand access to wealth-building and employment opportunities.



GOAL 3 We will improve safety and well-being for all Houstonians.

CHAPTER 2: SAFE & EQUITABLE NEIGHBORHOODS



GOAL 4 We will ensure that all neighborhoods have equitably



GOAL 5 We will invest in arts and culture to strengthen community resilience.



GOAL 6 We will ensure all neighborhoods are healthy, safe, and climate ready.



GOAL 7 we will build up, not out, to promote smart growth as Houston's population increases.

CHAPTER 3: HEALTHY & CONNECTED BAYOUS



GOAL 8 We will live safely with water.



GOAL 9 We will embrace the role of our bayous as Houston's front yard.

CHAPTER 4: ACCESSIBLE & ADAPTIVE CITY



GOAL 10 We will demonstrate leadership on climate change through action.



GOAL 11 We will modernize Houston's infrastructure to address the challenges of the future.



GOAL 12 We will advance equity and inclusion for all.



GOAL 13 We will transform city government to operationalize resilience and build trust.

CHAPTER 5: INNOVATIVE & INTEGRATED REGION



GOAL 14 We will continue to invest in the region's diverse economy.



GOAL 15 We will increase regional transportation choice.



GOAL 16 We will manage our land and water resources from prairie to bay.
























GOAL 17 We will enhance regional emergency preparedness and response.























GOAL 18 We will leverage existing and new investments and partnerships.

RESILIENT HOUSTON TARGET STATUS

Resilient Houston has 18 main Targets, one for each of the 18 Goals. These Targets and other metrics are also available online at <https://kinder.rice.edu/> through a partnership with Rice University's Kinder Institute for Urban Research.

TARGET	2020 STATUS
 1 Provide at least 500,000 Houstonians with preparedness training by 2025.  	5,750 people trained
 2 Offer 20,000 Hire Houston Youth Summer Jobs in 2020.  	1,881 summer jobs for 5,921 applicants
 3 Ensure zero traffic-related fatalities and serious injuries on Houston streets by 2030. 	260 fatalities 1,216 serious Injuries
 4 Develop 50 neighborhood plans by 2030. 	10 Complete Communities Plans
 5 Invest \$5 million in local artists to create resilience awareness projects across the city by 2025.  	\$10,000 in projects \$5M in COVID-19 relief efforts
 6 Plant 4.6 million new native trees by 2030. 	712,717 (2019 and 2020)
 7 Build at least 375,000 new homes across every income level by 2050 to welcome new residents to the city of Houston. 	35,566 (2020)
 8 Remove all habitable structures from the floodway by 2030. 	5,595 Habitable structures in the floodway
 9 Construct at least 500 miles of trails and bike lanes by 2025. 	344.1 total miles of high-comfort bikeways

In Progress 
 Paused 
 Complete 
 Impacted by COVID 19 


	TARGET	2020 STATUS
	10 Achieve carbon neutrality by 2050 in accordance with the Paris Agreement.	33,414,134 Total GHGS (Metric Tonnes CO2e) in 2019
		
	11 Complete 100 new green stormwater infrastructure projects by 2025.	30 Complete GSI Projects
		
	12 Eliminate geographic disparities in life expectancy by 2050.	24 years
	 	
	13 Appoint Department Resilience Officers in every City of Houston Department in 2020.	24 Department Resilience Officers
		
	14 Attract or incubate 50 Energy 2.0 companies in Greater Houston by 2025.	28 companies
	 	
	15 Provide 100% of Houstonians access to high-frequency public transportation choices within a half-mile by 2050.	54% live within a half-mile of high-frequency transit
		
	16 Conserve 24% of undeveloped regional lands as natural spaces by 2040.	14.7% Of undeveloped land has been preserved
		
	17 Ensure that 100% of Houstonians and visitors have access to accurate, real-time emergency alerting by 2030.	161,619 Alert Houston sign ups
		
	18 Invest \$50 billion in major recovery, mitigation, and modernization projects that increase resilience by 2040.	\$7.6B
		
































RESILIENT HOUSTON ACTION UPDATES

Resilient Houston has 62 Actions and numerous sub-actions within each of the 18 Goals.

 In Progress  Paused  Complete

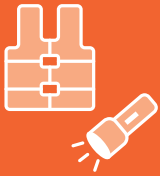
GOAL	ACTION	DESCRIPTION	
	1	Ensure Houstonians have the information, skills, and capacity to prepare for any emergency.	
	2	Mobilize Houstonians to adapt in the face of climate change.	
	3	Support small businesses to better withstand any disruption.	
	4	Encourage community leadership, stewardship, and participation.	
	5	Maximize access to economic opportunity and prosperity for all Houstonians.	
	6	Provide opportunities for more Houstonians to start, maintain, and grow small businesses.	
	7	Prepare Houston's workforce and all young Houstonians for the jobs of the future.	
	8	Make our streets 100% safe for all Houstonians.	
	9	Shelter and house any Houstonian in need.	
	10	Proactively care for Houstonians' mental health.	
	11	Create a city where Houstonians of different ages and accessibility needs can thrive.	
	12	Support equitable neighborhoods through community planning and programs.	
	13	Accelerate investments in inclusive housing and neighborhood development.	
	14	Invest in local arts and culture to build community cohesion and to celebrate neighborhood identity.	
	15	Leverage arts and culture to creatively engage Houstonians in risk awareness.	
	16	Make Houston neighborhoods greener and cooler to combat extreme heat.	
	17	Develop "Lily Pads" to serve as Neighborhood Resilience Hubs.	
	18	Ensure all neighborhoods have access to quality parks and nature.	
	19	Grow equitable access to quality food to nourish Houston's status as a culinary capital.	
	20	Prevent, mitigate, and recover from the effects of environmental injustice in our communities.	

GOAL	ACTION	DESCRIPTION	
	21	Create a citywide comprehensive housing study with neighborhood-specific recommendations.	
	22	Promote the need for safe, secure, and affordable homes and transportation access for all Houstonians.	
	23	Invest in transit-oriented and trail-oriented development.	
	24	Protect and strengthen neighborhoods through appropriate infill development.	
	25	Make room for water.	
	26	Clean Houston's bayous and waterways.	
	27	Advance research and technology to improve water management.	
	28	Respect bayous and natural floodplains as an integral part of Houston's urban nature.	
	29	Increase access to our bayous for recreational, health, and other community benefits.	
	30	Encourage inclusive growth and economic development along bayou corridors.	
	31	Adopt and implement the Climate Action Plan goals and actions.	
	32	Conduct a climate impact assessment to inform City policies and programs.	
	33	Holistically manage our water resources to be climate ready.	
	34	Integrate green stormwater infrastructure into Houston's built environment.	
	35	Equitably advance complete streets implementation to build resilient roads	
	36	Advance and modernize building codes and standards.	
	37	Advance and modernize Houston's integrated resource recovery management.	
	38	Develop and improve partnerships that create and incentivize infrastructure maintenance.	
	39	Promote equity through citywide policies and programs.	
	40	Reach all Houstonians through equitable community engagement.	
	41	Make resilience a permanent part of Houston's systems and services.	

GOAL	ACTION	DESCRIPTION	
	42	Prioritize resilience in city budgeting, procurement, and capital improvement projects.	
	43	Leverage smart cities investments to address our most critical resilience challenges.	
	44	Advance open data policies.	
	45	Leverage Houston's energy capital role to lead innovation in the global energy transition.	
	46	Incubate, connect, and support established and emerging industries.	
	47	Partner with anchor institutions to further resilience innovation that strengthens and protects the region.	
	48	Work with regional partners to invest in an integrated mobility network.	
	49	Improve first- and last-mile connections.	
	50	Enable Houstonians to make mobility choices that improve well-being and reduce the cost of living.	
	51	Conserve regional undeveloped land for flood mitigation, environmental health, and recreation.	
	52	Develop long-term strategies with County partners to build the resilience of areas within Houston's extraterritorial jurisdiction.	
	53	Enhance regional preparedness.	
	54	Increase protection of critical digital assets from cyberattacks.	
	55	Improve emergency response and post-disaster recovery coordination.	
	56	Develop a regional critical infrastructure catalogue.	
	57	Fortify greater Houston's lifelines and supply chains.	
	58	Leverage disaster recovery efforts to accelerate the implementation of resilience measures.	
	59	Leverage planned and proposed transformative regional projects to maximize resilience benefits.	
	60	Advocate for addressing legal and legislative barriers and opportunities for resilience-building with local, state, and federal partners.	
	61	Update Plan Houston to integrate resilience goals.	
	62	Lead and partner nationally and globally to build resilience.	

CHAPTER 1

PREPARED & THRIVING HOUSTONIANS



GOAL 1

We will support Houstonians to be prepared for an uncertain future.

ACTION 3.2 Advance green stormwater infrastructure In 2020 Houston established a new Green Stormwater Infrastructure (GSI) Tax Abatement program to encourage large developments of \$3M or more to include a minimum of \$100,000 of GSI investment to help encourage more rapid integration of nature based infrastructure solutions by Houston's development community. These projects will contribute to the Resilient Houston Target of completing 100 GSI projects by 2025. The GSI tax abatement was one of four prioritized recommendations in the 2019 Incentives for Green Development. Completing the other three recommended GSI incentives is planned for 2021.



GOAL 2

We will expand access to wealth-building an employment opportunities.

ACTION 5.3 Expand Financial Empowerment Centers In early 2020, Houston's first two Financial Empowerment Centers (FEC) opened to provide one-to-one, professional financial counseling to Houstonians at no cost. The FEC locations are at the Acres Home Multi Service Center and Magnolia Multi Service Center in two of the 10 Complete Communities through funding from the Cities for Financial Empowerment Fund and Regents Bank. These centers quickly transitioned to providing virtual services in 2020 and provided more than 800 individual counseling sessions during COVID-19. This led to the additional funding by the Rockefeller Foundation to open a third FEC in the Sunnyside area in 2021. The FECs are part of a national Cities for Financial Empowerment Fund program to ensure equitable access throughout the Cities, especially for low- and moderate- income families.



GOAL 3

We will improve safety and well-being for all Houstonians

ACTION 8.1 Develop and implement a Vision Zero Action Plan that keeps all Houstonians safer. At the end of 2020, the Vision Zero Action Plan was released to encourage a change in paradigm. For Houston to be a healthy place to live with equitable access to all the city has to offer, we must end traffic deaths and serious injuries. This requires a shift in the way we think about the streets. The four main approaches of the Vision Zero Action plans are communications, safe systems, safe speeds, and program strategies to shift our culture and focus on multimodal safety projects.

CHAPTER 2

SAFE AND EQUITABLE NEIGHBORHOODS



GOAL 4

We will ensure that all neighborhoods have equitably resourced plans.

Action 13.5 Join The Opportunity Zone Community of Practice (now Opportunity Collective) In 2020, the Rockefeller Foundation selected Houston as one of 12 places around the United States to join The Rockefeller Foundation Opportunity Collective, which aims to catalyze public and private sector investment in places to break barriers to access capital and credit for Black and Latinx owned small businesses. The Rockefeller Foundation has pledged an initial \$15million for twelve jurisdictions, which it will allocate to government, businesses, faith-based, and non-profit partners, projects and programs to build power, provide contextual technical assistance, and seed or accelerate capital products that benefit Black and Latinx small business owners. Houston joins Atlanta, Baltimore, Boston, Chicago, El Paso, Jackson, Louisville, Miami Dade County, Newark, Norfolk, and Oakland.



GOAL 5

We will invest in arts and culture to strengthen community resilience

ACTION 14.1 Grow the number of Arts (and Cultural) Districts In alignment with the City's Arts & Cultural Plan, the Mayor's Office of Cultural Affairs has been working with several communities to expand their economic development with an arts and cultural focus, which includes state designated cultural districts. In 2020, two historically African-American communities (Fifth and Third Wards) became the 6th and 7th state designated cultural districts in Houston.



GOAL 6

We will ensure all neighborhoods are healthy, safe, and climate ready

ACTION 16.1 Launch an urban heat island mapping campaign. In August 2020, right around when temperatures tend to hit their peak in Houston and Harris County, roughly 80 community scientists took to the streets with specially-designed thermal sensors attached to their cars. They embarked on a 320

square-mile effort to measure and map urban heat in the region. This community science endeavor was led by the Houston Harris Heat Action Team (H3AT), a collaboration between the City of Houston, Houston Advanced Research Center (HARC), The Nature Conservancy, Harris County Public Health. This project was part of a larger initiative, Heat Watch, led by CAPA Strategies and supported by the National Oceanic and Atmospheric Administration's Climate Program Office, who helped to fund the project along with Lowes and Shell. The results of the urban heat island mapping campaign are available at www.H3AT.org.



GOAL 7

We will build up, not out, to promote smart growth as Houston's population increases

ACTION 23.2 Build equitable development near transit and rails In 2020, the Houston Housing and Community Development Department began financing 32 rental developments with a total of 3,500 units, which are mostly affordable, located within a quarter mile of high frequency Metro transit stops. For additional information, visit <https://recovery.houstontx.gov/multifamily/>

HEALTHY AND CONNECTED BAYOUS



GOAL 8

We will live safely with water.

Action 26.1 Prioritize challenges with wastewater discharges In 2020, Houston Public Works developed and launched the ‘Protect Our Pipes’ education campaign to help Sanitary System Overflows (SSOs). The campaign focuses diverting common sources of clogged wastewater pipes – fats, oils, grease (FOG) and wipes – from entering the City’s sanitary sewer system. The goal of the campaign is to work in tandem with the Houston Public Works SSO response and Houston Health Department enforcement to reduce SSOs caused by clogs from FOG and wipes within the city to decrease FOG-induced SSOs by 50% in 5 years.



GOAL 9

We will embrace the role of our bayous as Houston’s front yard.

ACTION 28.2 Enhance ecological patches and corridors using restoration in city parks as a model In 2020, the City was awarded a grant from the Resilient Communities Grant Program, administered by the National Fish and Wildlife Foundation and funded by Wells Fargo. Houston was among 11 Resilient Communities Program grants awarded in 2020. In early 2021, Houston joined partners including New Hope Housing and Star of Hope, to kick off the Urban Prairie Resilience Project to transform and restore up to eight acres of undeveloped and vacant land into a native prairie and Green Stormwater Infrastructure (GSI) system integrated within the existing developed campus. Upon its completion, the \$800,000 project will advance Resilient Houston’s goals by creating more stormwater detention, native habitat, tree plantings, and carbon capture capacity greenspace as well as recreation areas for children and families. The project will also leverage partnerships between multiple local and national organizations, support affordable housing, serve as a demonstration project adjacent to the Sunnyside Complete Community, and create an educational and workforce development program for children, residents, and city staff alike.

CHAPTER 4

ACCESSIBLE & ADAPTIVE CITY



GOAL 10

We will demonstrate leadership on climate change through action.

ACTION 32 Conduct a Climate Impact Assessment for Houston to Inform City Policies and Programs. In 2020, the Houston Climate Impact Assessment was released to better illustrate how climate change will impact Houston's future based on lower and higher scenarios of future climate change. The assessment, conducted by Anne Stoner and Katharine Hayhoe of ATMOS Research & Consulting, studied 25 separate future climate indicators, including the number of days with temperatures above 100 degrees, the number of nights above 80 degrees, total annual precipitation, days with precipitation above 4 inches, and the annual number of dry days. To view the report visit <https://www.houstontx.gov/mayor/Climate-Impact-Assessment-2020-August.pdf>



GOAL 11

We will modernize Houston's infrastructure to build forward and address the challenges of the future

ACTION 34.3 Apply a resilience quotient to green stormwater infrastructure projects. Houston was selected to join the 2021 National League of Cities - Cities of Opportunity action cohort focused on equity and resilience. Houston will work with the action cohort to advance equitable investments in nature-based solutions to combat flooding, urban heat, poor air quality, environmental racism and to promote health and well-being. The City of Houston will join the action cohort focused on equity and resiliency with Fremont, CA, Kansas City, MO, Milwaukee, WI, Missoula, MT, Plainfield, NJ and South Fulton, GA. The City will be forming a stakeholder group to inform the work of the Action Cohort with nature-based solutions experts and community representatives.



GOAL 12

We will advance equity and inclusion for all.

ACTION 39.1 Increase equity training opportunities. In 2020, the City of Houston was scheduled to hold an in

person racial equity training for Mayor's Office and Department and Division leadership in the Spring, but this training was postponed due to COVID-19. But later in the year over 100 of Houston's leadership, including Mayor's Office staff, Department Directors and others participated in a two day (virtual) training conducted by the Government Association for Racial Equity (GARE).



GOAL 13

We will transform city government to operationalize resilience and build trust

ACTION 41.1 Track progress on the implementation of Resilient Houston through an annual report and a strategy update every five years. This One Year Report is the first annual report for the Resilient Houston strategy. As part of the one year anniversary of the release Resilient Houston, the Mayor's Office of Resilience has worked with Rice University's Kinder Institute for Urban Research to launch a website to begin tracking the 18 Targets of Resilient Houston and the 12 Targets in Houston's Climate Action Plan. These efforts exemplify the accountability and transparency needed to operationalize resilience and build trust. The website is available at <https://kinder.rice.edu>

INNOVATIVE & INTEGRATED REGION



GOAL 14

We will increase regional transportation choice.

ACTION 46 Create connected, vibrant, live-work innovation districts that attract and retain top talent

In 2020, Greentown Labs announced their expansion to Houston and selects Houston's Innovation District being developed by Rice Management District as their inaugural location. As the city's first climatetech and cleantech-focused startup incubator, Greentown Labs Houston (Greentown Houston) will be a catalyst in driving progress toward the goals outlined in Houston's Climate Action Plan (RH Action 31) The Greentown Houston incubator will provide more than 40,000 sq. ft. of prototyping lab, office, and community space for about 50 startup companies, totaling 200-300 employees.



GOAL 15

We will demonstrate leadership on climate change through action.

ACTION 48.2 Expand Houston's high-comfort bike network and become a Gold-level Bicycle Friendly Community.

In 2020, the Planning and Development Department

and Houston Public Works are working with Metro and other partners to implement first/last mile bike lanes near Metro rail lines. Additionally, in 2020, Houston City Council approve an ordinance prohibiting parking of motor vehicles in dedicated bicycle lanes.



GOAL 16

We will manage our land and water resources from prairie to bay.

ACTION 51.3 Restore land to native prairie, wetlands, and woodlands

In early 2020, the Houston Parks and Recreation Department kicked off a riparian restoration initiative to restore over 1,000 acres of habitat, including planning 200,000 trees in city parks. the initiative will target 70 parks adjacent to bayous and tributaries for the revitalization of forested riparian buffers by removing invasive species and installing a diverse mix of native trees and shrubs.



GOAL 17

We will enhance regional emergency preparedness and response.

ACTION 55.1 Improve hazardous At the end of 2020, Houston City Council approved stronger safety measures to protect Houston neighborhoods and

improve enforcement of the city's hazardous enterprises ordinance. These changes to the Hazardous Enterprises Ordinance will increase the regulation of hazardous operations and materials by strengthening enforcement, expanding definitions, creating a review process for appeals and modifications and establishing related fees to protect the public health, safety, and welfare of Houstonians.

In early 2021, Houston expanded its Hazardous Materials Response Team coverage with the addition of Hazmat Unit 3, which is not located at Fire Station 66, including 16 newly trained members. The addition of the HazMat Unit 3 will reduce response time to hazardous materials incidents on the north and west sides of Houston.



GOAL 18

We will leverage existing and new investments and partnerships.

ACTION 62 Lead and Partner National and Globally to Build Resilience.

In the fall of 2020, Mayor Sylvester Turner was elected the first Chair of the Board of Directors of the newly formed Resilient Cities Network. Additional information on page 30. In early 2021, Mayor Sylvester Turner became Chair of the nationwide coalition, Climate Mayors. In this role, Mayor Turner will help catalyze climate-forward actions taken at the local level, provide an example of climate action for leaders at all levels of government, and advocate for an economic recovery grounded in equity and environmental stewardship.



RESILIENT CITIES NETWORK

In 2020, the network of cities that participated in the 100 Resilient Cities program pioneered by the Rockefeller Foundation officially launched Resilient Cities Network, an independent 501(c)3 non profit organization.

Resilient Cities Network is led by a Board of Directors and a Global Steering Committee made up of two Chief Resilience Officer from each global region including North America, Asia and the Pacific, Latin America and the Caribbean, Africa, and Europe and the Middle East.

In September 2020, Mayor Sylvester Turner become the first Chair of the Board of Directors for Resilient Cities Network. He is joined by Mayor Ahmed Aboutaleb, Mayor of Rotterdam, Monica Barone, Chief Executive Officer for the City of Sidney, Dr. Sameh Wahba, Global Director of The World Bank's Urban Disaster Risk Management, Resilience and Land Global Practice, Naina Batra, CEO and Chairperson of the Asian Venture Philanthropy Network, Martha

Herrera Gonzalez, Global Social Impact Director for CEMEX, and Daniel Stander, special advisor to the United Nations on matters of risk analytics and finance.

Chief Resilience Officer Marissa Aho continues to represent Houston and North America serving on the Global Steering Committee with Chief Resilience Officers from Quito, Ecuador, Christchurch, New Zealand, Buenos Aires, Argentina, Kigali, Rwanda, Pune, India, Athens, Greece, Rotterdam, The Netherlands, Cape Town, South Africa, and San Francisco, United States.

For more information about Resilient Cities Network, visit resilientcitiesnetwork.org



CITIES FOR A RESILIENT RECOVERY

Cities for a Resilient Recovery is a coalition of cities and resilience practitioners committed to taking leadership roles, embedding resilience in recovery from the COVID-19 pandemic, and supporting each other through the recovery planning process by sharing knowledge, providing subject matter expertise, and facilitating both collective and individual action.

The Resilient Cities Network and its community of Chief Resilience Officers have launched an open, participatory, and

collaborative platform where cities can exchange knowledge and learning, identify key actions and initiatives to address the impacts of the COVID-19 crisis, and further future-proof their systems in the face of global challenges. The C2R platform is open both to member cities and to cities outside the Resilient Cities Network.

For more information about Cities for a Resilient Recovery, visit
<https://resilientcitiesnetwork.org/programs/cities-for-a-resilient-recovery>

RACIAL EQUITY THROUGH RESILIENCE COMMUNITY OF PRACTICE

“Cities who are not equitable will always be in recovery mode.”

*-Ron Harris, Chief Resilience Officer for the City of Minneapolis and
Stewart Sarkocy-Banoczy, Resilient Cities Network*

In 2020 a coalition of urban resilience practitioners with community, corporate, philanthropic and academic leaders in pursuit of one common goal – to achieve effective racial equity through resilience in cities.

2020 has offered boundless evidence of what city practitioners have always known – when crisis hit, the people who suffer the most are the poorest and most vulnerable. Individuals in these communities are disproportionately harmed by emergencies and, all too often, by poorly designed city services. “Despite many warnings, cities have been ill-prepared to manage a pandemic combined with an economic downturn, civil unrest and the demand for an end to anti-Black racism.

If history repeats itself, cities will always be reacting to the needs of its vulnerable populations, struggle with competing interests, and remain unable to recover before the next shock hits.

The founding city members of the Racial Equity through Resilience CoP include Atlanta, Boston, Honolulu, Houston, Minneapolis and Tulsa.

For more information about the Racial Equity through Resilience CoP, visit
<https://resilientcitiesnetwork.org/communities/racial-equity-community/>



Chief Resilience Officer

Marissa Aho, AICP

<https://www.houstontx.gov/mayor/chief-resilience-officer>

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